

MSV2 5' Gene
MSV1 5' Gene
MSV2 5' Protein
MSV1 5' Protein

HSV2 qD Gene
HSV1 qD Gene
HSV2 qD Protein
HSV1 qD Protein

```

901 TCGGCCCTTGTAGGAGATECCGGCGRRAFGGTTCTTTCGAGATECCCCCCCACACTGGCAFAETCCCFATGATEGCCAG
TCGGCCCTCTTGGAGGACCCCCGGTGGGGACGGTGCGCFCARATECCACCAACACTGGCAFAETCCCFATGATEGCCAG
301 SerAlaLeuLeuGluAspProValGlyThrValSerSerValIleProProAsnProValIleProSerIleGln
SerAlaLeuLeuGluAspProValGlyThrValIleProProAsnProValIleProSerIleGln

```

HSV2 gD Gene
HSV1 gG Gene
HSV2 eN Protein
HSV1 gD Protein

HSV? aD Gene
HSV1 aD Gene
HSV? aD Protein
HSV1 aD Protein

HSV2 ♂ Gene
 HSV1 ♂ Gene
 HSV2 ♂ Protein
 HSV1 ♂ Protein

HSV2 αD Gene
HSV1 αD Gene

CGGGTGTACTCTTETRAGGCT-TATTTAAAG-CGCGTCGGGTATTGAGGTGGGCTTGCTGATTAAC
CCCTTTAATGG-TGCGGGGGGGTCAAGGTCTGGGGGGTTC-----GGTATGGCTTAACTTAACTTAACT

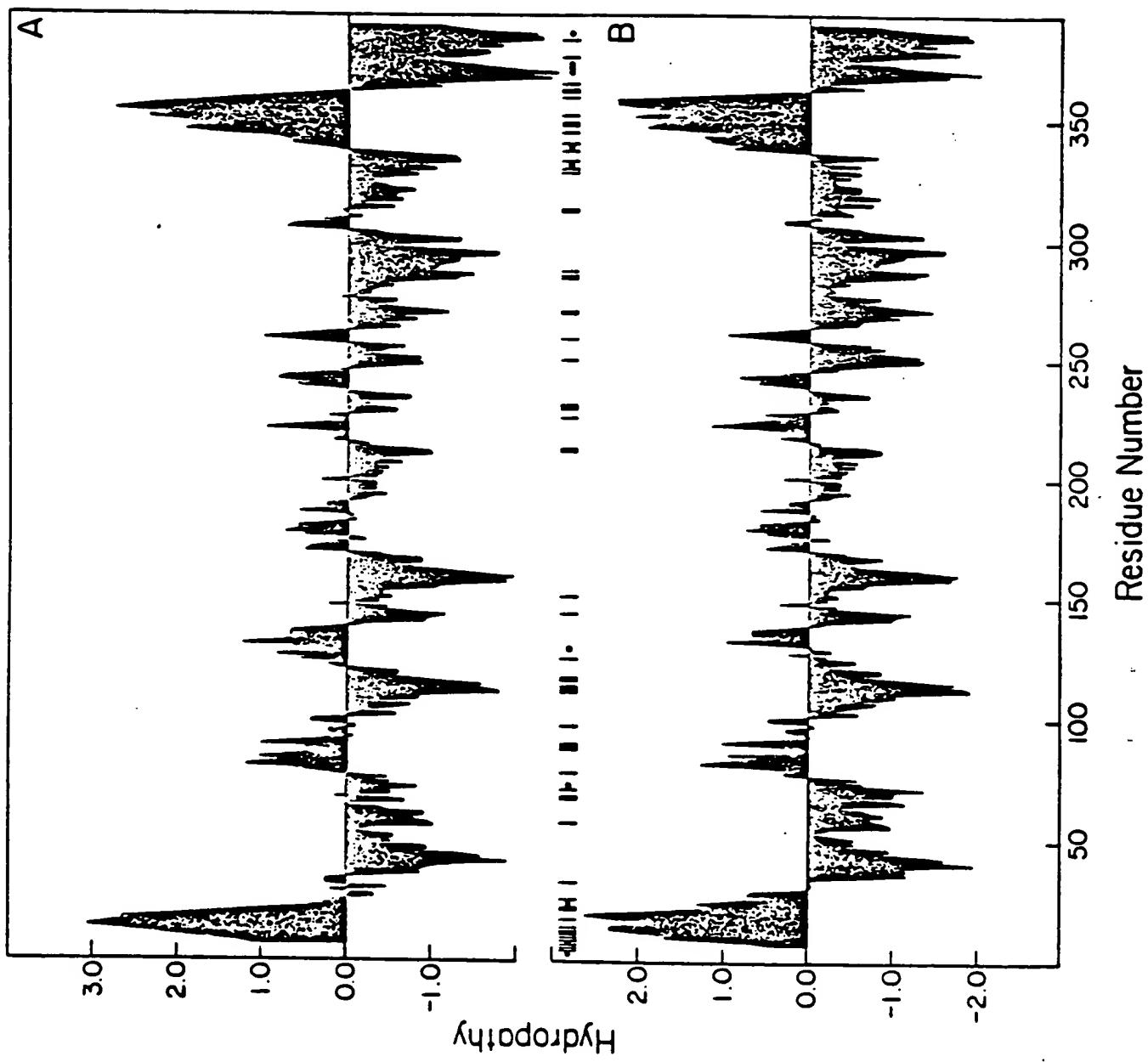
HSV2 cD Gene
HSV1 cD Gene

HSV2 gD Gene
HSV1 gD Gene
HSV2 Open Reading Frame

HSV2 oD Gene HSV2 Open Reading Frame

FIGURE 1B

FIGURE 2



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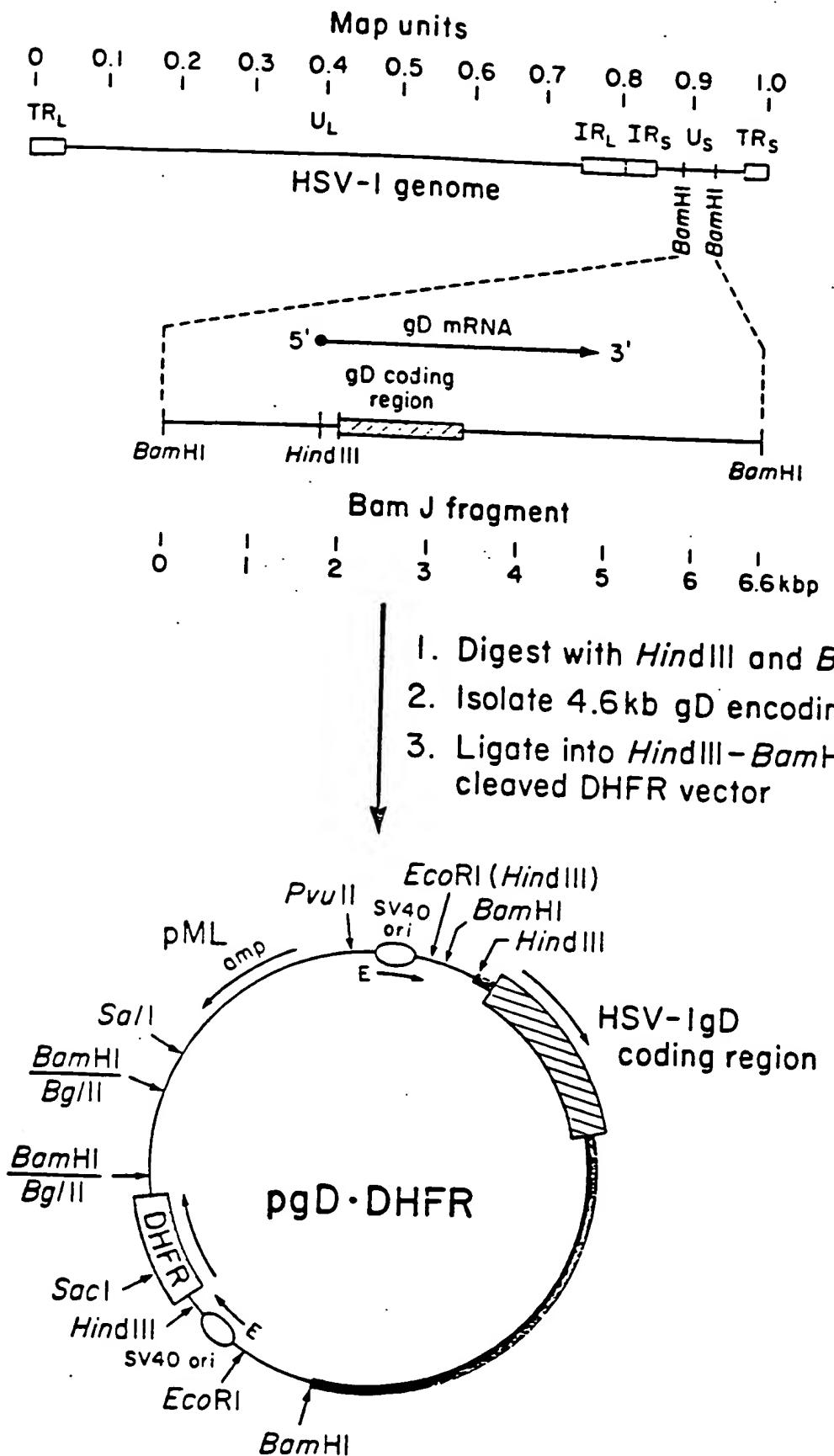


FIGURE 3

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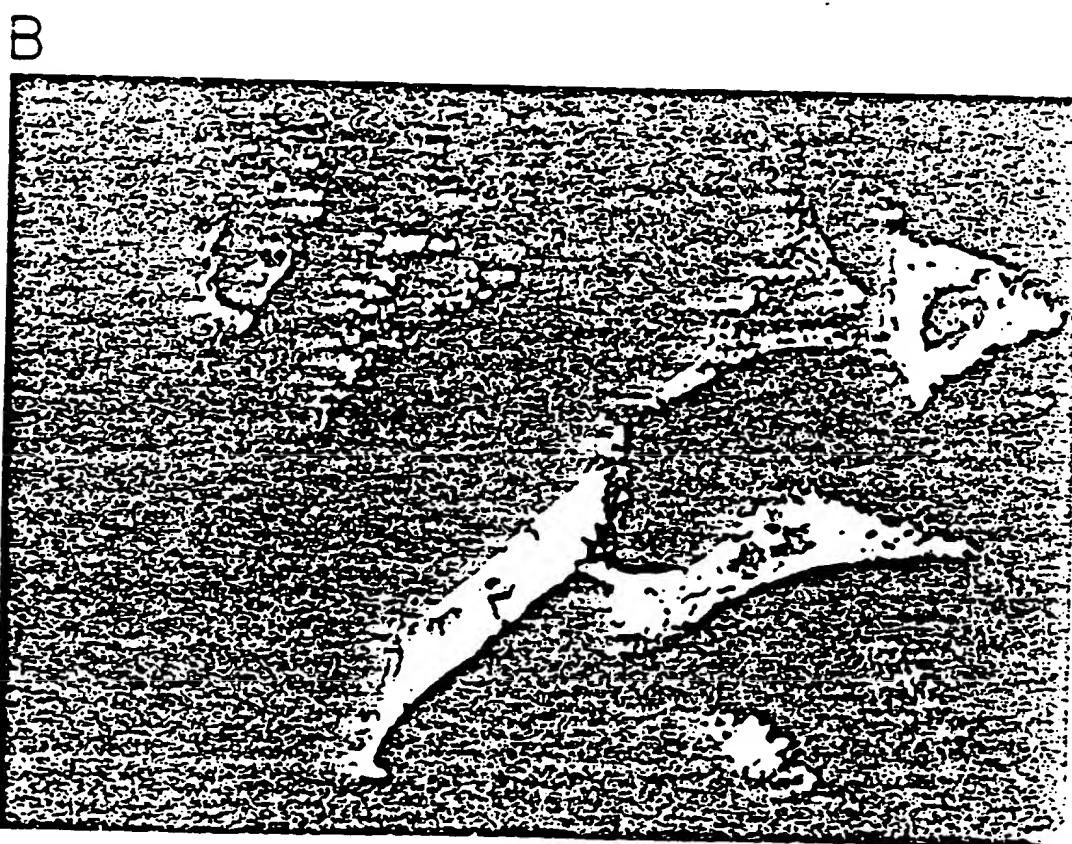


FIGURE 4

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A

B

1 2 3 4 5 6

5' 15' 30' 60' 120'

92.5
66.2
45.0
31.0
21.5

-92.5
-66.2
-45.0
-31.0
-21.5

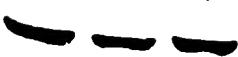
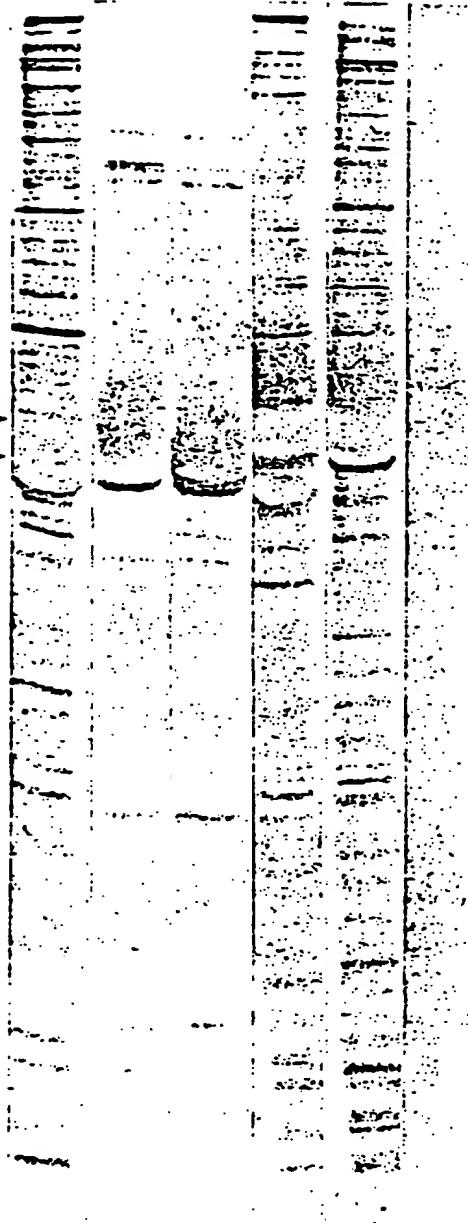


FIGURE 5

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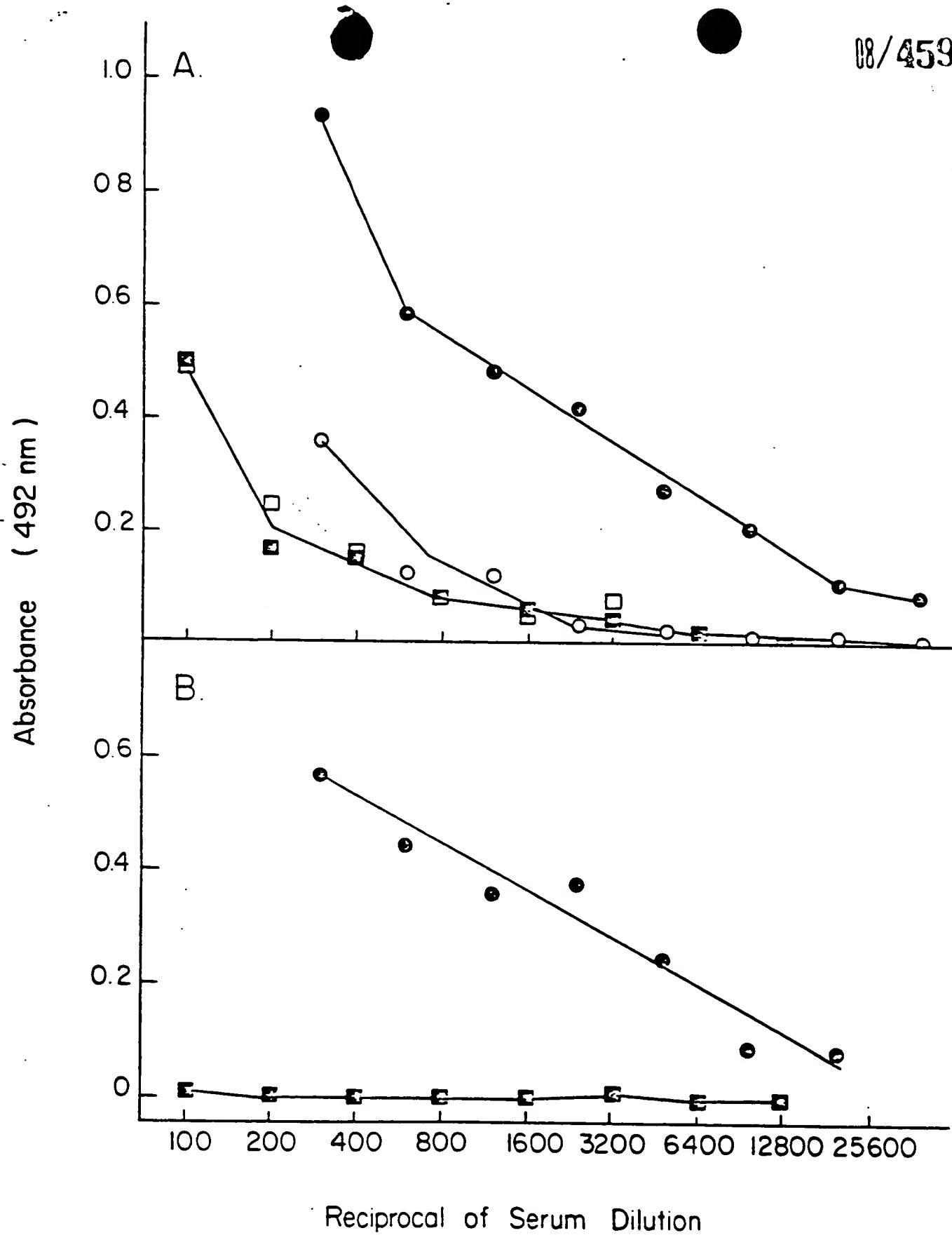


FIGURE 6

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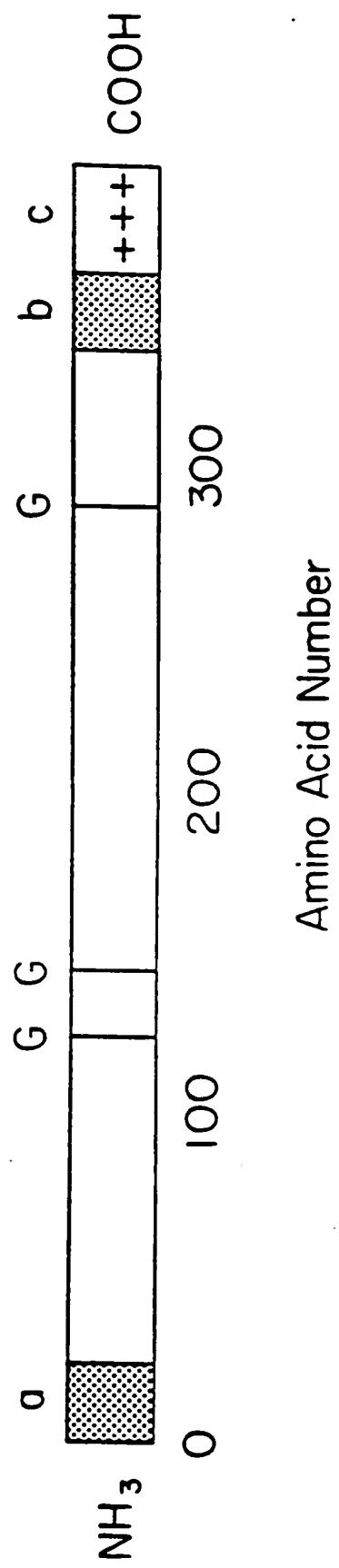
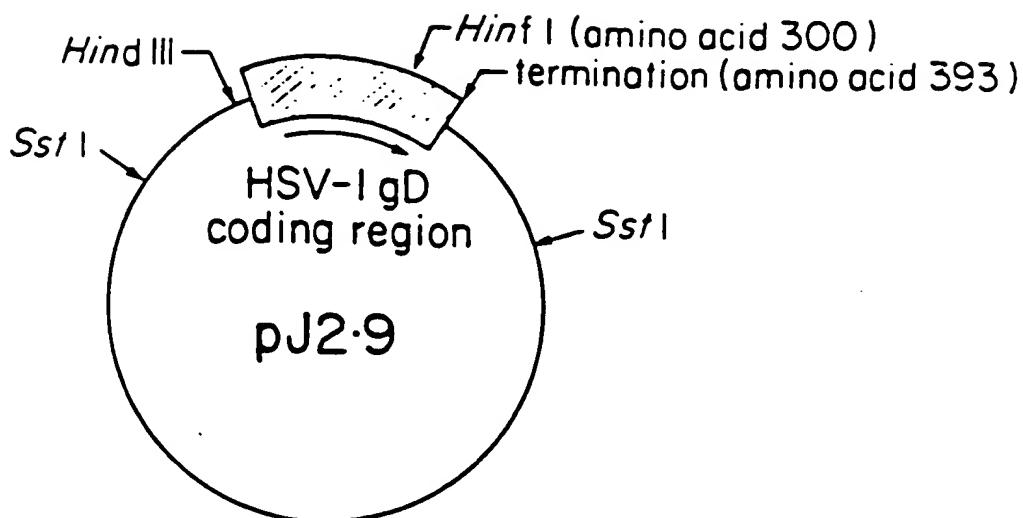


FIGURE 7



1. Digest with *Hinf* I
2. Fill in with Klenow DNA polymerase and 4dNTPs
3. Digest with *Hind* III
4. Isolate 970bp truncated gD gene
5. Ligate to *Hind* III - *Hpa* I cleaved DHFR vector

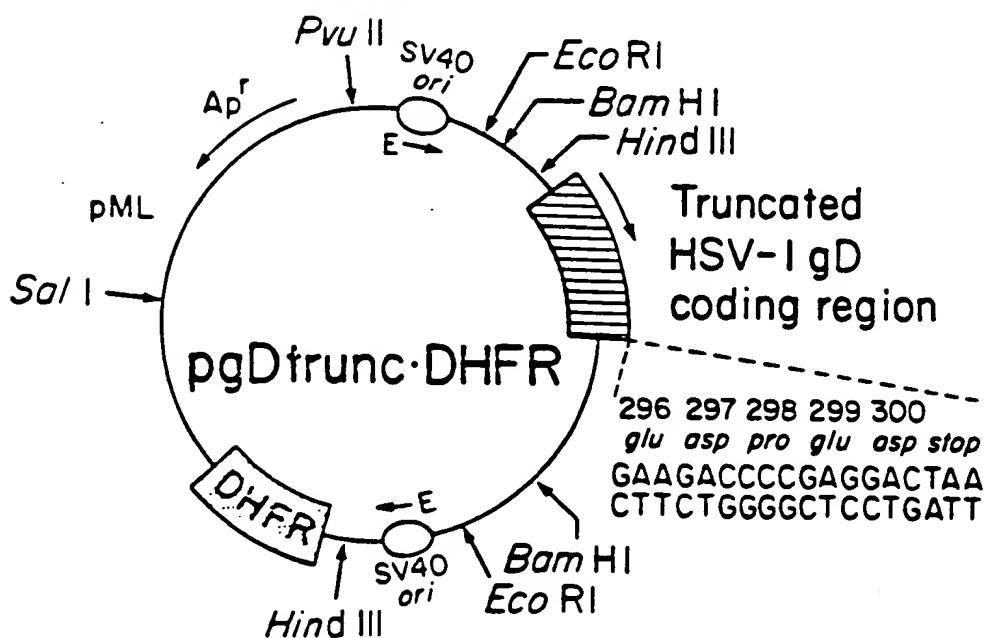
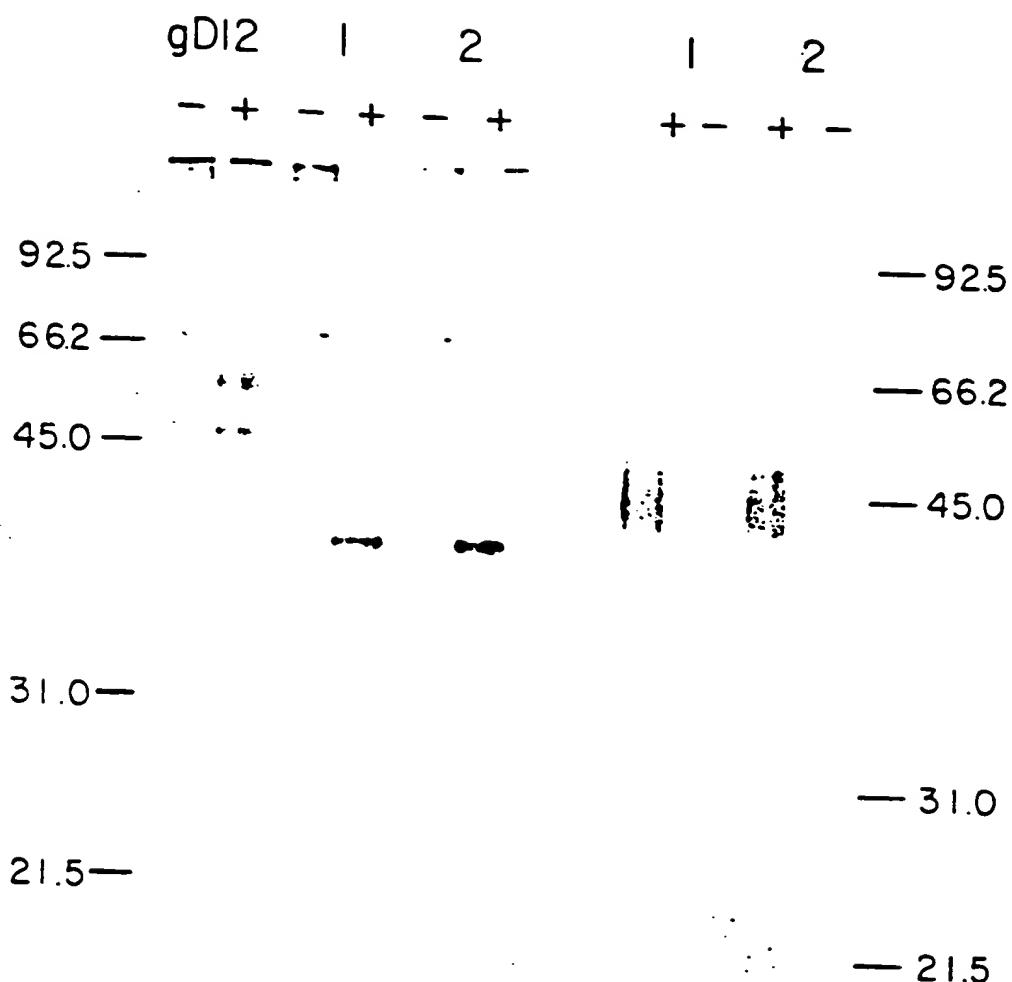


FIGURE 8

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F I G U R E 9

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1 2 3 4

— — —

1

-92.5

-66.2

-45.0

-31.0

-210

F I G U R E 10

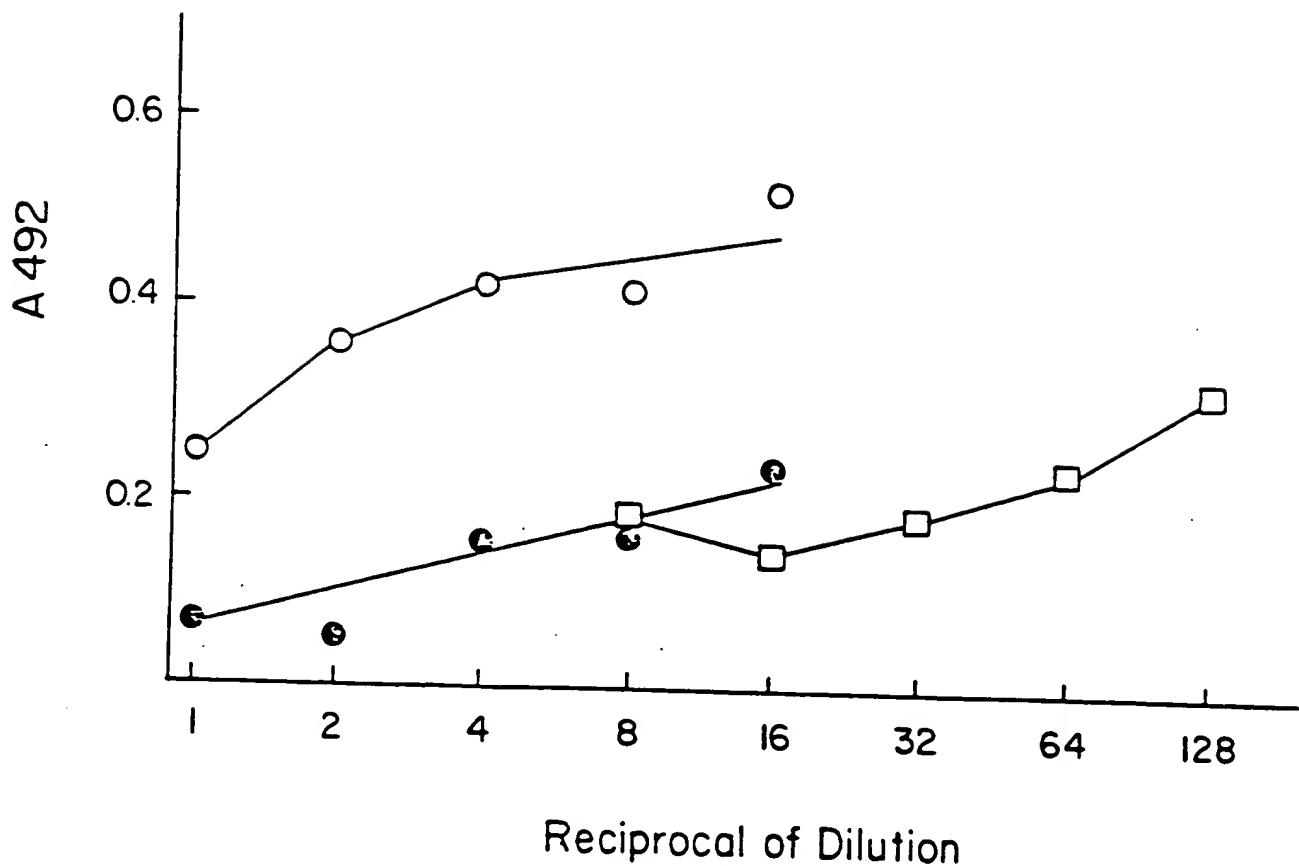


FIGURE 11

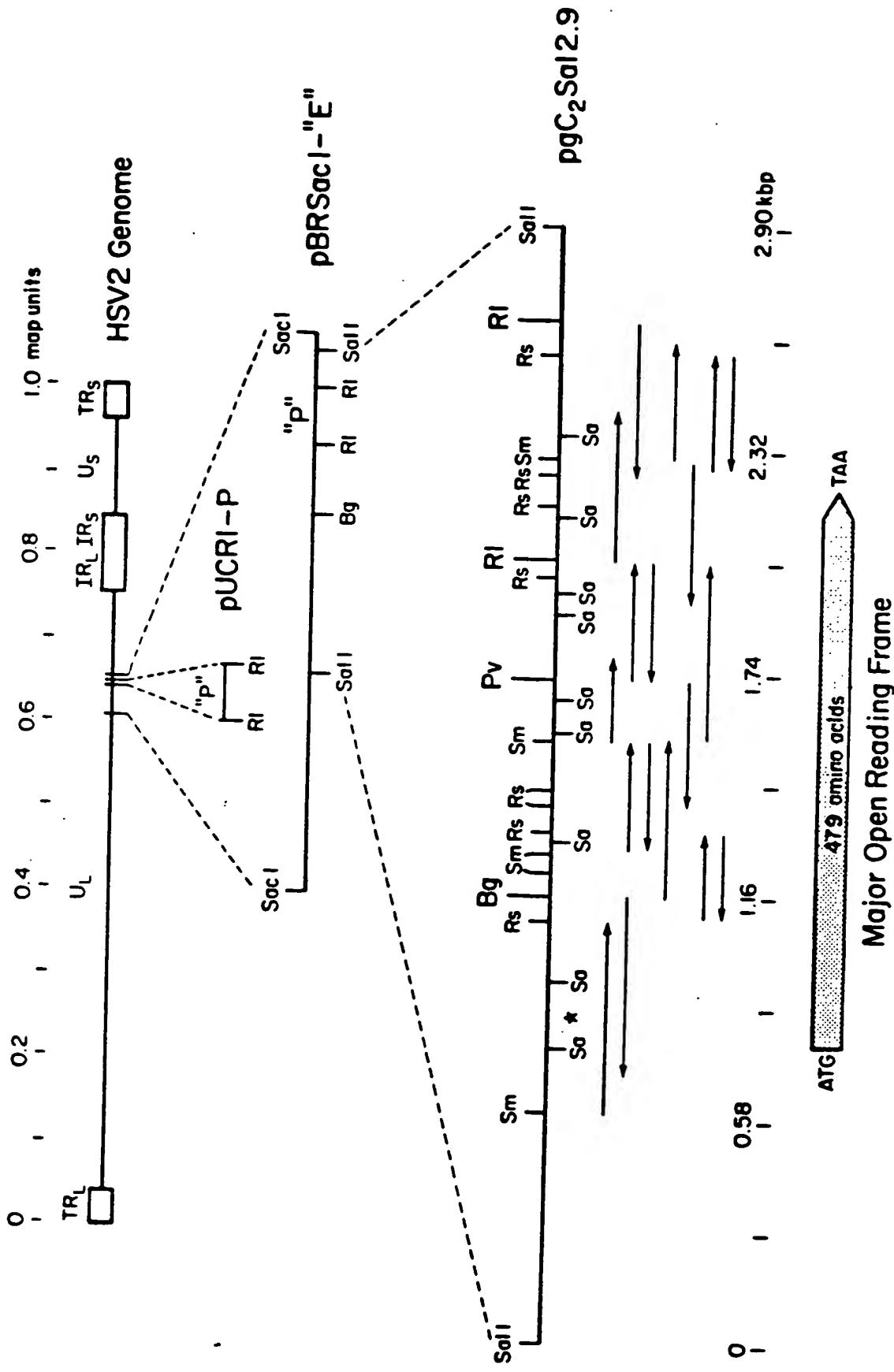


FIGURE 12

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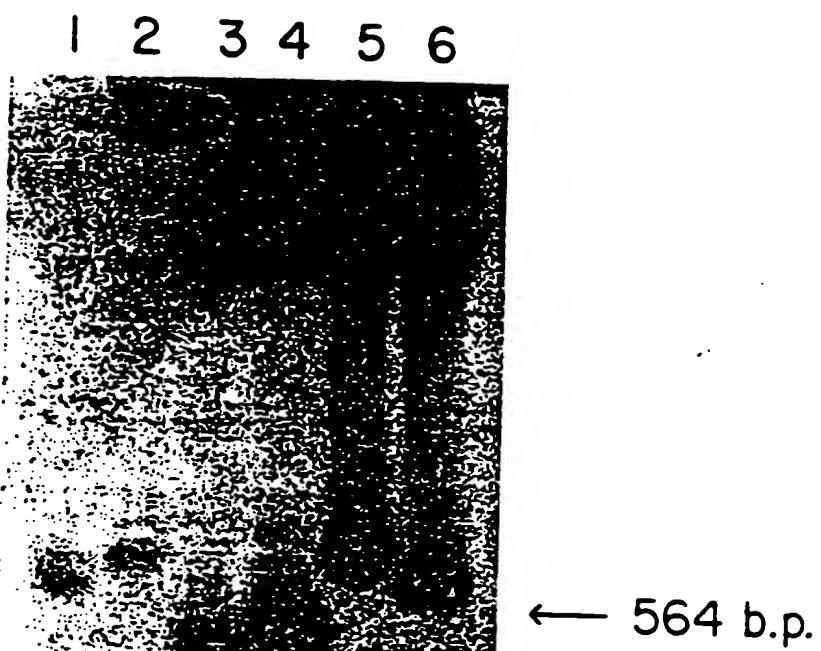


FIGURE 14

A.

C C C C C C C C C C C C C C
 HSV-1 gC 1 MAPGRVGLAVLVLLWLLGAGVAGGSETASTGPTITAGAVINASEAPTS
 HSV-2 gF
 C C C C C C C C C C C C C C
 HSV-1 gC 50 GSPGSAASPEVTPTSTPNP-----
 HSV-2 gF 48 -----
 C C C C C C C C C C C C C C
 HSV-1 gC 101 STPPDPKPKR[NNT]PAKSGRPTKPPG-PV[RE]DRRDPLARYGSRVQI[D]RFN
 HSV-2 gF 71 KASTAKPAPP--P-KG-PPKTSSEPV[RE]RHDPLARYGSRVQI[D]RFN
 C C C C C C C C C C C C C C
 HSV-1 gC 150 S[RE]MFRFLQIWRYSMGPSPPIAPAPDLEEVLT[RE]SAPPGGLLVYDSAPNL
 HSV-2 gF 117 S[RE]TESRLQIWRYATATDAEIGTAPSLEE[VW]YVSAPPGGQLVYDSAPNR
 C C C C C C C C C C C C C C
 HSV-1 gC 200 [RE]DPHVLAEGAGPGADPPLYSVTGPLPTORLIEGEVTPATQGMYTLANGR
 HSV-2 gF 167 [RE]DPHVIWAEGAGPGASPRLYSVGVLGRQLIEELTLETQGMYTVWGR
 C C C C C C C C C C C C C C
 HSV-1 gC 250 MDSPEHYGTWVRVRMFRPPSLTLQPHAVMEGQPFKAT[TAAYAYPRNPVE]
 HSV-2 gF 217 TDRPSAYGTWVRVRVFRPPSLT[RE]PHAVLEGQPFKAT[TAATYYPGHRAE]
 C C C C C C C C C C C C C C
 HSV-1 gC 300 FDWFEDDROQVFNPQOIDTQT[RE]HPDGFITVSTV[RE]TSEAVGGQVPPRTFTC
 HSV-2 gF 267 FWFEDGRVRFDPAIHTQTQE[RE]PDGFSTVSTVTSAAVGQQGPPRTFTC
 C C C C C C C C C C C C C C
 HSV-1 gC 350 MTWHRDTSVTFSRRA[RE]GLALVLPRPTITMEFGVRHVVCAGCYPEGVTF
 HSV-2 gF 317 LTWHRDTSVFSRRA[RE]TASVLPRPTITMEFTGDHAYCAGCYPEGVTF
 C C C C C C C C C C C C C C
 HSV-1 gC 400 WFLGDDPSAAKSAYTAOE[RE]DHPGLATVRSILPISYDYSEVY[RE]LWTGYP
 HSV-2 gF 367 WFLGDDSSPAEKVAVASOT[RE]GRPGTATIRSTLPVSYEQTEY[RE]LAGYF
 C C C C C C C C C C C C C C
 HSV-1 gC 450 AGIPVLEHHGSHQPPPDRPTERQVIEAIEWVGIGIGIVLAAGVLVVTIAIVY
 HSV-2 gF 417 DGIPVLEHHGSHQPPPDRPTERQVIRAVEGAGIGIVAVLVAVVLAGTAVVY
 C C C C C C C C C C C C C C
 HSV-1 gC 500 VVRTSOSRORHRR
 HSV-2 gF 467 LTHASSVRYRRLR

B

		C C C C C CCCCC
HSV-2 730bp ORF	1	MAFRASGPAYQPLAPRPPP PAR ARVPAVAVIGVGAIYGAFALVAALVLVP
HSV-1 730bp ORF	1	----- MRARLPAAAWVGVTIIGGVVIIAALVLVP
		C C C C C C C
HSV-2 730bp ORF	50	PRSSWGLCPDCSGWDEFNAGCVADPTPVHEQAVGGCSAPATLIPRAAA
HSV-1 730bp ORF	31	SRASWALSPCDGHWEFNLGCISDPTPMHEQAVGGCSAPATLIPRAAA
		C CC CC N CN C C N C
HSV-2 730bp ORF	100	KHLAAALT R VQAERSSGYWWNGDGIRTLRLVD S VSGIDGFCEEL
HSV-1 730bp ORF	81	KQLAAVARVQ S ARSSGYWWNGDGIRARLRLVDGVGGIDQFCEEPALRIC
HSV-1 730bp ORF	131	YYPRSPGGFVQFVTSTRNALGLP

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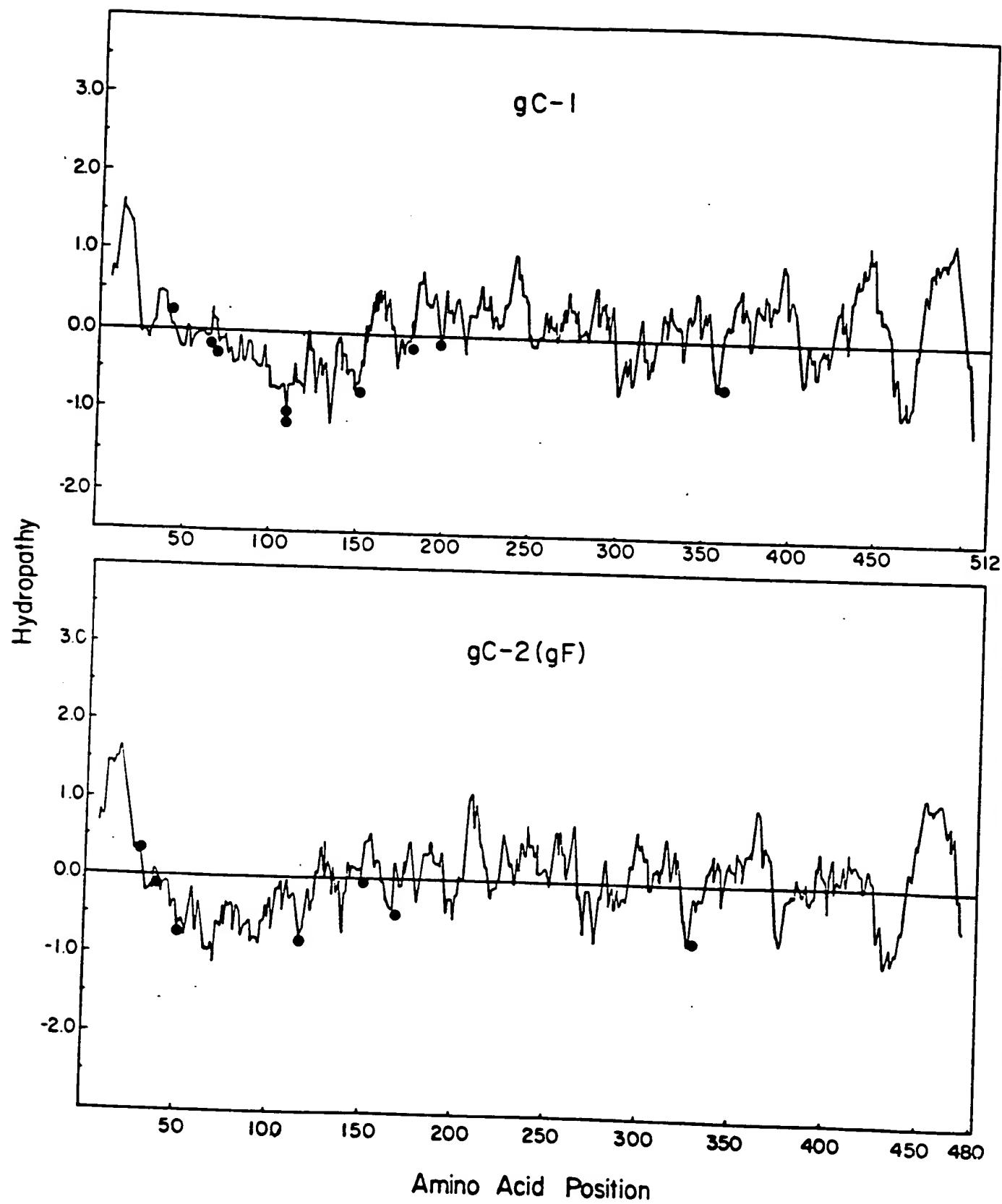


FIGURE 16

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